

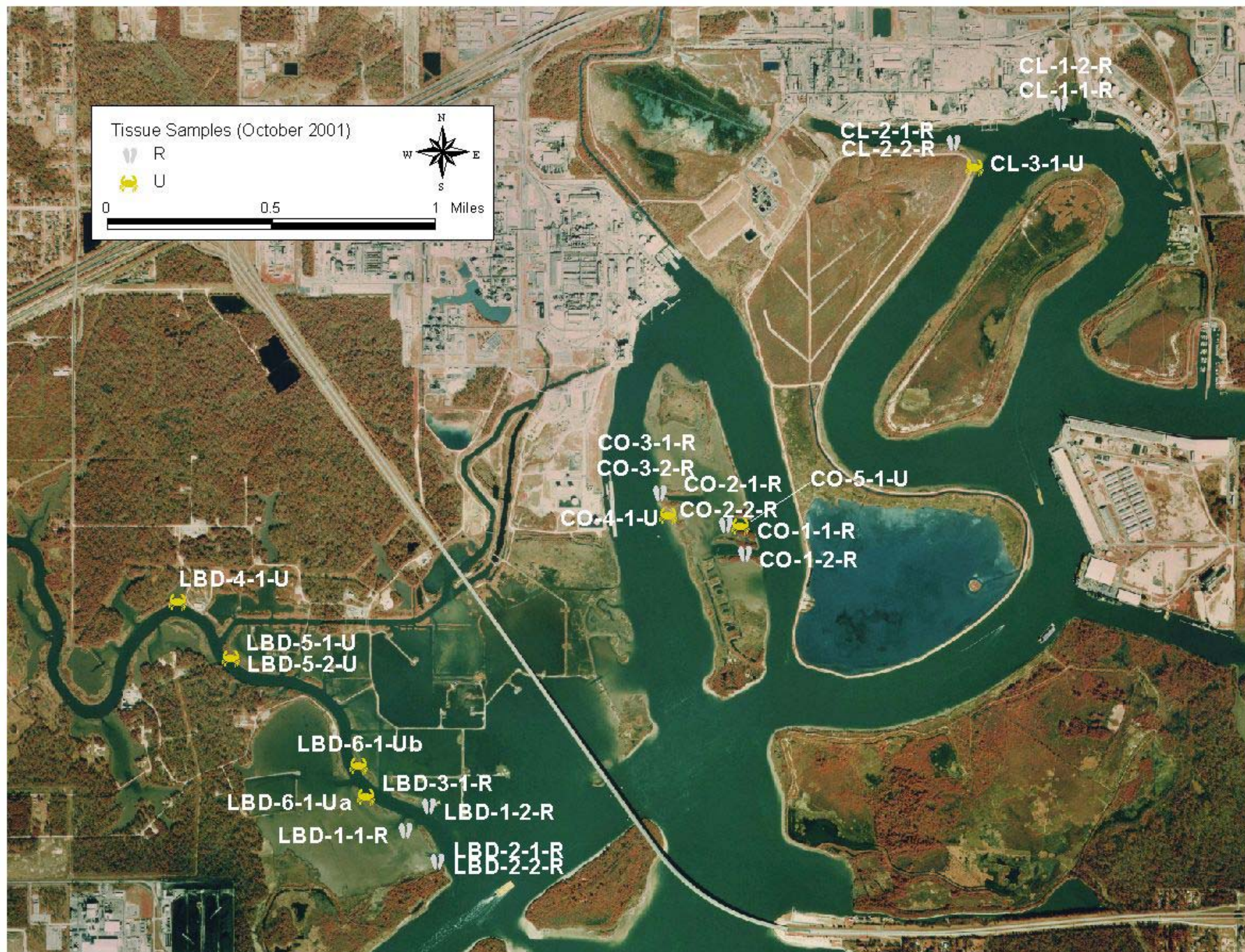
# Calcasieu Estuary Environmental Investigation



# EPA Activities

- Fall 2001 – Additional biota collection
- Dec. 2001 – EPA received draft Remedial Investigation Report
- Jan. 2002 – EPA received draft Human Health Risk Assessment







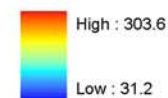
# Remedial Investigation Report

- Report did not meet EPA's needs – Too much “What” and not enough “Why”.
- EPA and their contractor have determined a new approach to the report.
  - Principal Component Analysis
    - Reduce data
    - Identify key chemical
    - Understand relationships among chemicals and how they move
  - Kriging
    - Spatial Analysis of chemicals

Figure X  
Zinc Concentrations in Sediment  
Calcasieu Estuary Remedial Investigation  
Calcasieu Parish, Louisiana

**Legend**

**Value**



● Sediment Sample Location

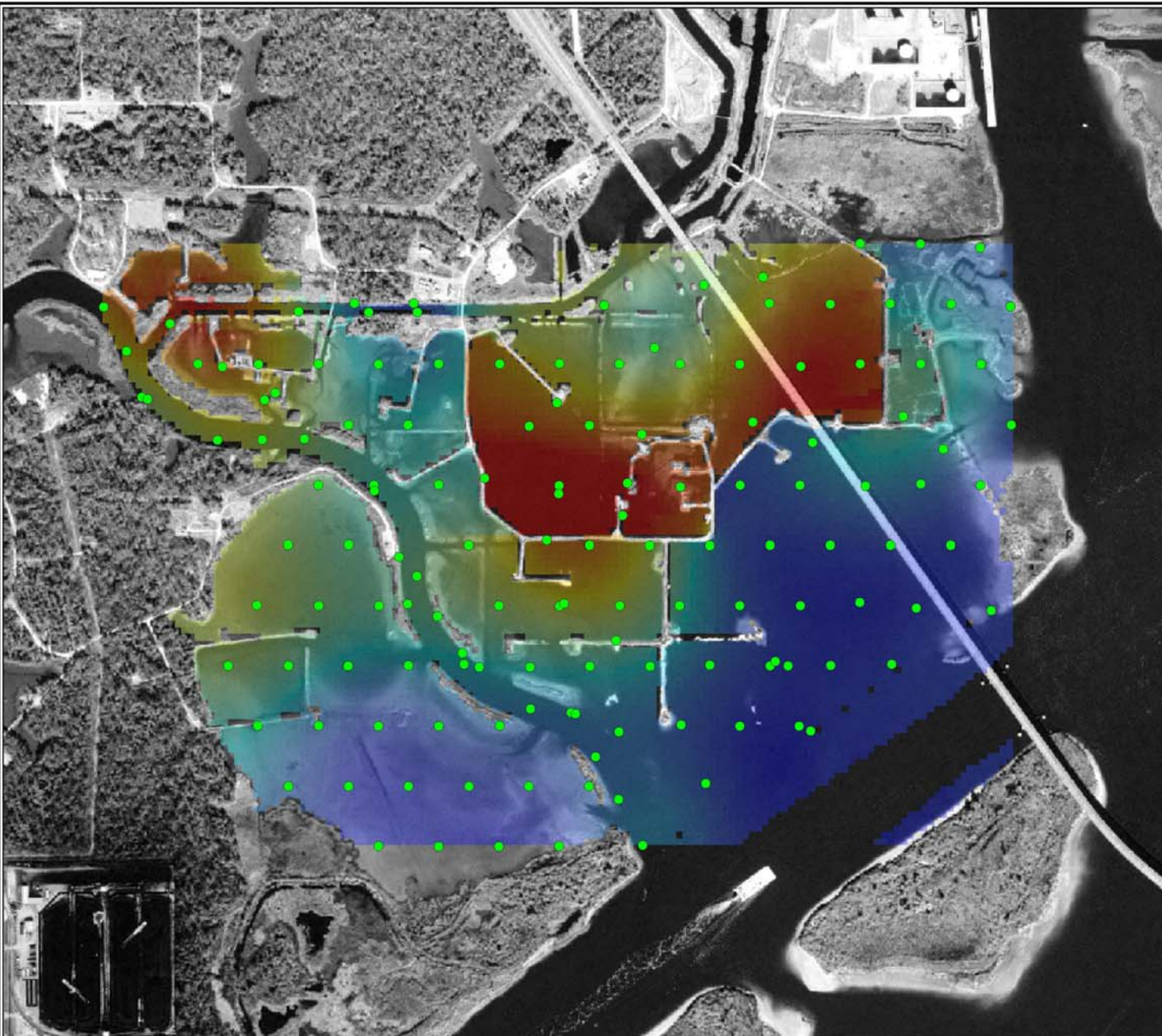
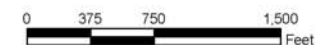
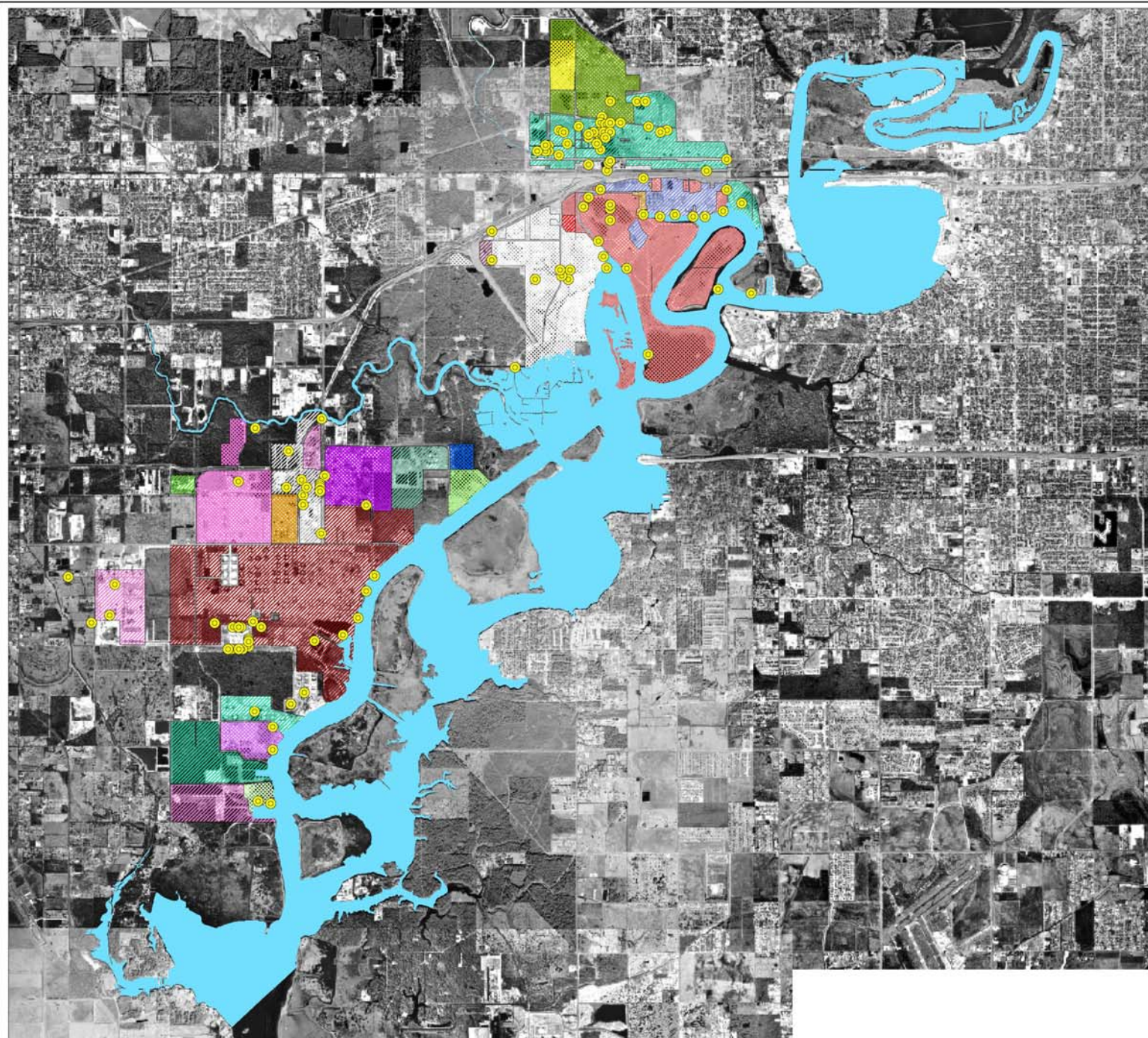







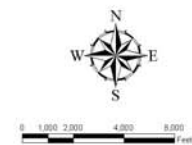


Figure X  
Industry Boundary and NPDES Outfall Locations  
Calcasieu Estuary Remedial Investigation  
Calcasieu Parish, Louisiana



**Legend**

-  Arch Chemical
-  Bridgestone Fire
-  Certainteed
-  CitCon
-  Citgo
-  Condea Vista
-  Conoco
-  Conoco/Citgo
-  Entergy
-  GA Gulf
-  Himont
-  LA Pigment
-  LC Harbor/termin
-  Lyondell
-  Olin
-  Oxy
-  PPG
-  Tetra
-  Venco
-  WR Grace
-  Westlake
-  NPDES Outfall Location
-  Water



# Human Health Risk Assessment

- Revisions necessary due to errors and inconsistencies in database.
  - 3058 samples, 310,000 records in the database.
- Revision will include an assessment of PPG's data.



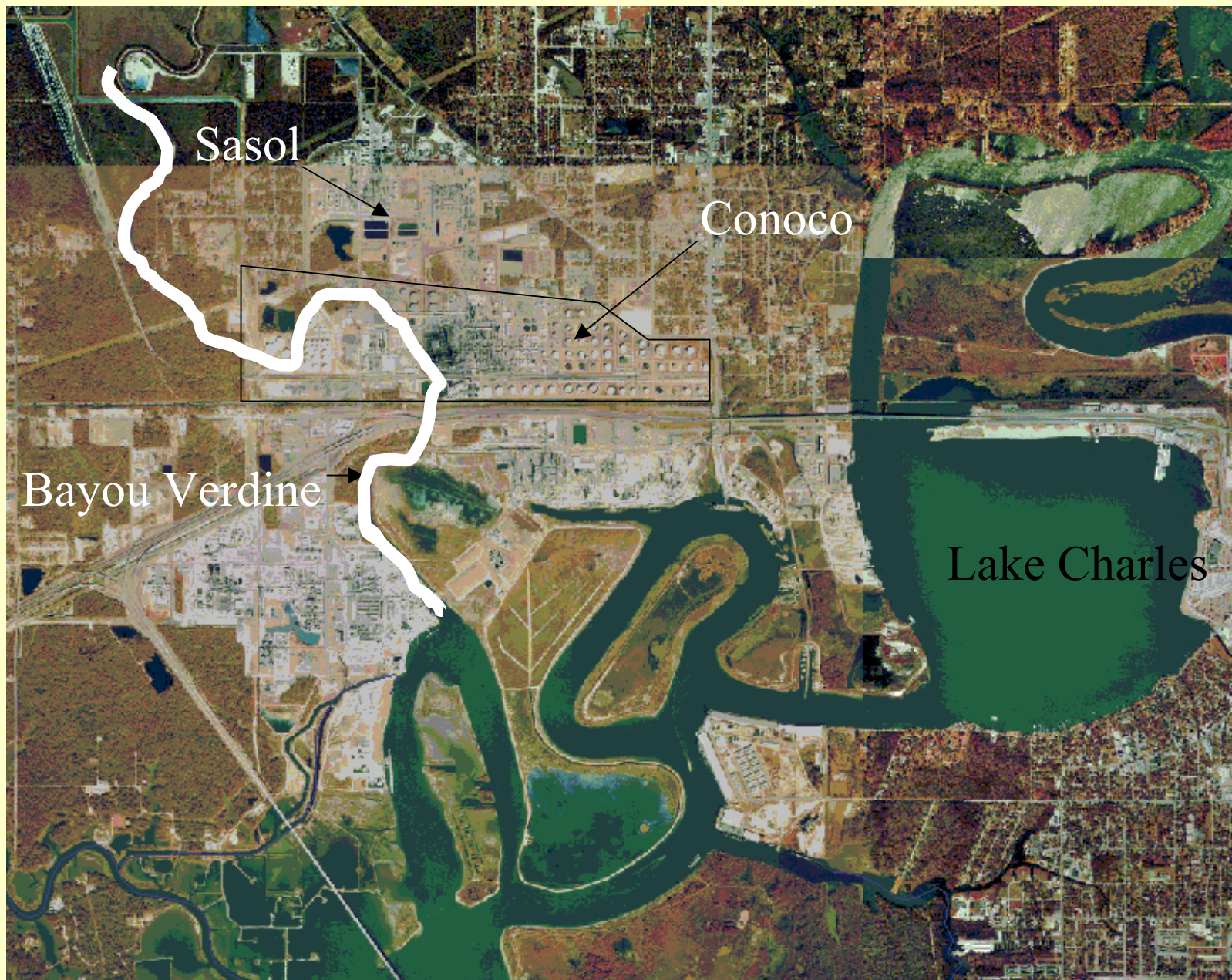
# Schedule

- Updated public database – May 2002
- Human Health Risk Assessment – June 2002
- Remedial Investigation Report – August 2002
- Ecological Risk Assessment – August 2002



# Bayou Verdone Investigation

- EPA, Conoco and Sasol signed an Administrative Order on Consent to conduct an Engineering Evaluation/Cost Analysis On February 14, 2002.
- The EE/CA will evaluate engineering alternatives to address the residual sediment contamination in Bayou Verdone.





# Bayou Verdine EE/CA

- EE/CA will be available for public review
- EPA selects the remedy in an Action Memorandum.
- Implementation of the remedy done under a Consent Decree that resolves EPA and Natural Resource liabilities.

# Bayou Verdine, 1996 Aerial Photograph

